

**REMARKS/ARGUMENT**

By this amendment, claims 1-29 remain pending in this application. Claims 1, 7, 14 and 21 have been amended. The amendment to claims 1, 7, 14 and 21 are not made for any statutory purposes. No new matter is added. Applicant reserves the right to pursue the original claims in this application and in others. Applicant respectfully request reconsideration in view of the above amendments and the following remarks.

In numbered paragraph 3 of the Office Action, claims 1, 2, 7, 8, 13-16, 19, 21-23 and 26 are rejected under 35 U.S.C. § 102(e) as being anticipated by Eldridge et al. (U.S. Patent No. 6,339,338). In numbered paragraph 5 of the Office Action, claims 3-6, 9-12, 17, 18, 20, 24, 25 and 27-29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Eldridge et al. Applicant respectfully traverses these rejections.

A feature of the inspection method of the present invention as recited in claim 1 requires the steps of, in part:

“connecting an output terminal of said driver to a branching point;  
connecting the input terminal of the semiconductor devices and the branching point through a current limiting element and a capacitor, *said capacitor being connected in parallel to said current limiting element.*”

The invention of claim 1 accordingly provides a method of inspecting a semiconductor device by providing a current limiting element and a capacitor, in parallel to each other, between the output terminal of the driver of a tester and the input terminal of the semiconductor device to be tested.

In contrast to the present invention as recited in claim 1, the semiconductor device of Eldridge does not disclose a current limiting element and a capacitor, connected in parallel to each other, provided between the output terminal of the driver of the tester and the input terminal of the semiconductor device to be tested. Rather, the semiconductor

test apparatus and method that is disclosed in Eldridge is only which is disclosed already as being prior art by the Applicant (see pages 2-9 of the Applicant's specification). The resistor R1 and the capacitor C1 that are disclosed in Eldridge are only provided between a power supply 24 and DUTs 14, the power supply 24 being utilized to supply power to the DUTs 14 as they are being tested (see column 1, lines 32-33). Additionally, R1 and C1 are not connected in parallel. Hence, the apparatus of Eldridge does not provide a signal used for inspection as required by claim 1 and will suffer from the same drawbacks as discussed in the Applicant's specification. Accordingly, the disclosure of Eldridge does not teach or suggest the method of inspecting a semiconductor device as recited in claim 1 of the present invention. Accordingly, Applicant submits that the rejections are overcome and respectfully requests the Examiner for withdrawal of the same.

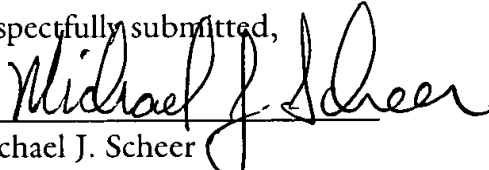
Claim 7, similar to claim 1, also recites a method for inspecting a semiconductor device including the steps of "connecting an output terminal of said first driver to a branching point and connecting each of the first terminals of the semiconductor devices and the branching point through a current limiting element and a capacitor." Claims 14 and 21, similar to claim 1, recite an apparatus for inspecting semiconductor devices including "a branching point to which an output terminal of said driver is connected" having "a current limiting element interposed between each input terminal of the semiconductor devices and said branching point" and "a branching point to which an output terminal of said first driver is connected" having "a current limiting element interposed between the first terminal of the semiconductor devices and said branching point," respectively. Accordingly, claims 7, 14 and 21 should be allowable along with claim 1 for at least the reasons as provided above. Claims 2-6, 8-13, 15-20 and 22-29 depend from claims 1, 7, 14 and 21, respectively. Accordingly, these claims should be allowable along with their base independent claims for at least the reasons as provided above and for its own unique combination of features which are neither taught or suggested by the cited prior art.

In view of the foregoing, Applicant believes that each of the presently pending claims in this application are in immediate condition for allowance. Accordingly, the Applicant respectfully requests the Examiner to allow the claims and to pass this application to issue.

Dated: November 27, 2002

Respectfully submitted,

By

A handwritten signature in black ink, appearing to read "Michael J. Scheer", written over a horizontal line.

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**APPENDIX A****Version of Each Paragraph/Section/Claim showing changes made****IN THE SPECIFICATION:****Paragraph at page 2, line 18 to page 3, line 3:**

Tester 61 for inspecting semiconductor devices in accordance with a test program includes a plurality of drivers 62 each for applying a predetermined signal to a terminal 65 for an input signal of semiconductor device 64 to be inspected. Each of semiconductor devices 64 has a plurality of terminals 65 each for an input signal. Tester 61 and semiconductor devices 64 are connected to each other through probe card 63. One [drivers 6] driver 62 in tester 61 corresponds to one terminal 65, and therefore, a number of drivers 62 greater than the total number of input terminals 65 of the semiconductor devices 64 to be inspected are prepared.

**Paragraph at page 3, line 16 to page 4, line 1:**

It is generally considered that semiconductor devices that are inspected simultaneously are of the same type. Thus, Japanese Patent Laid-Open No. 11-231022 (JP, 11231022, A) discloses an apparatus wherein a signal from a driver of a tester is branched in a probe card and supplied in parallel to a plurality of semiconductor devices to be inspected simultaneously as seen from FIG. 2. A wiring scheme by which a signal from a driver is branched and supplied [parallelly] in parallel to a plurality of semiconductor devices is called common drive wiring, and a driver used in such common drive wiring is called a common driver.

**Paragraph at page 4, line 2 to page 4, line 19:**

In the configuration shown in FIG. 2, three terminals 65a to 65c, and 65d to 65f for an input signal are respectively provided for each of a plurality of semiconductor devices 64a, 64b. The output of driver 62a from among the drivers in tester 61 is connected [one by one] to terminal 65a of semiconductor device 64a, and the output of

driver 62d is connected [one by one] to terminal 65d of another semiconductor device 64b. However, the output of driver 62b is branched at branching point 66a in probe card 63 and supplied to terminal 65e of semiconductor device 64b. Similarly, the output of driver 62c is branched at branching point 66b in probe card 63 and supplied to terminal 65c of semiconductor device 64a and terminal 65f of semiconductor device 64b. Since the output of each of drivers 62b, 62c is branched and connected to a plurality of terminals for an input signal, drivers 62b, 62c are common drivers.

**Paragraph at page 16, line 2 to page 16, line 11:**

It is assumed that, in FIG. 5 which shows a configuration of a semiconductor device inspection apparatus of a preferred embodiment of the present invention, tester 11 is used to inspect two semiconductor devices 14a, 14b simultaneously, for the convenience of description. Each of semiconductor devices 14a, 14b includes three inputting terminals 15a to 15c, 15d to 15f. Tester 11 includes a plurality of drivers 12a, 12b, 12c, 12d, . . . , and signals from the drivers are applied to semiconductor devices 14a, 14b through probe card [12] 13.

**IN THE CLAIMS (with indication of amended or new):**

Claim 1. (Amended) An inspection method for simultaneously inspecting a plurality of semiconductor devices each having a respective input terminal for receiving an input signal, the method comprising [the steps of]:

preparing a driver for outputting a signal to be used for inspection;

connecting an output terminal of said driver to a branching point;

connecting [each of] the [terminals] respective input terminals of the semiconductor devices and the branching point through a current limiting element and a capacitor, said capacitor being connected in parallel to said current limiting element; and

outputting [a] said signal from said driver toward said branching point.

Claim 7. (Amended) An inspection method for simultaneously inspecting a plurality of semiconductor devices each having a first terminal and a second terminal [each] for receiving an input signal, the method comprising [the steps of]:

preparing a first driver for outputting a first signal to be used for inspection;

preparing a plurality of second drivers [each] for outputting a second signal to be used for inspection;

connecting an output terminal of said first driver to a branching point;

connecting each of the first terminals of the semiconductor devices and the branching point through a current limiting element and a capacitor, said capacitor being connected in parallel to said current limiting element;

connecting output terminals of said plurality of second drivers and the second terminals [one by one] to each other; and

outputting [a] said first signal from said first driver toward said branching point and outputting [another] said second signal from said plurality of second drivers to said second terminals.

Claim 14. (Amended) An inspection apparatus for simultaneously inspecting a plurality of semiconductor devices each having a respective input terminal for receiving an input signal, the inspection apparatus comprising:

a driver for outputting a signal to be used for inspection;

a branching point to which an output terminal of said driver is connected;

a current limiting element interposed between each of the [terminals] respective input terminals of the semiconductor devices and said branching point; and

a capacitor connected in parallel to each of the current limiting elements.

Claim 21. (Amended) An inspection apparatus for simultaneously inspecting a plurality of semiconductor devices each having a first terminal and a second terminal [each] for receiving an input signal, the inspection apparatus comprising of:

a first driver for outputting a first signal to be used for inspection;

a plurality of a second drivers [each] for outputting a second signal to be used for inspection;

a branching point to which an output terminal of said first driver is connected;

a current limiting element interposed between [each of] the first terminals of the semiconductor devices and said branching point [through]; and

a capacitor connected in parallel to said current limiting element;

wherein output terminals of said plurality of second drivers and the second terminals are connected [one by one] to each other.

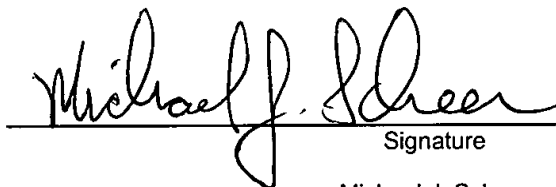


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Amendment (13 pages).

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